4

7. (9 points) Each license plate consists of 3 digits followed by 3 letters. How many license plates are possible?

$$\boxed{10 \cdot 10 \cdot 10 \cdot 26 \cdot 26 \cdot 26}$$

8. (9 points) How many positive integers less than 1000 have no common factors with 6?

Ans = # of #'s less than 1000 − # of #'s divisible by 2 − # of #'s divisible by 3 + # of #'s divisible by 6

$$= \boxed{999 - 499 - 333 + 166}$$